Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

1-32. (Cancelled)

33. (Currently Amended) A process for inducing a neutralizing antibody response in a subject against HIV comprising administering ~~a vaccine~~an immunogenic composition directly to mucous membranes, wherein the immunogenic ~~vaccine~~ composition comprises:

(a) an antigen that comprises a C-terminal truncated gp160 protein, wherein the C-terminal truncated gp160 protein has a molecular mass of about 140 kDa and ~~includes~~ comprises the endogenous hydrophobic amino acid sequence set forth at positions 523-551 of SEQ ID NO:1;

(b) proteosomes, wherein the proteosomes are complexed or coupled with the antigen; and

(c) bioadhesive nanoemulsions,

wherein the immunogenic composition elicits neutralizing antibodies to HIV in a subject upon administration of the immunogenic composition to the subject, and wherein the neutralizing antibodies are present in one or more of vaginal secretions, intestinal secretions, lung secretions, and feces.

34. (Currently Amended) The process according to claim 33 wherein the immunogenic ~~vaccine~~ composition is administered by an intranasal or respiratory route.

35. (New) The process according to claim 33 wherein the antigen further comprises an exogenous hydrophobic anchor that is a C8-C18 fatty acyl group.

36. (New) The process according to claim 33 wherein the antigen further comprises an exogenous hydrophobic anchor that is (a) lauroyl, (b) Phe Leu Leu Ala Val (SEQ ID NO:2), or (c) Val-Ala-Leu-Leu-Phe (SEQ ID NO:3).

37. (New) The process according to claim 33 wherein the amino acid sequence of said C-terminal truncated gp160 protein consists essentially of the sequence set forth at residues 33-681 of SEQ ID NO:1.

38. (New) The process according to claim 33 wherein the C-terminal truncated gp160 protein is an oligomeric C-terminal truncated gp160 from HIV-1.

39. (New) The process according to claim 33 wherein the C-terminal truncated gp160 protein is recombinantly produced.

40. (New) The process according to either claim 35 or claim 36, wherein said immunogenic composition is formed by

(a) adding the exogenous hydrophobic anchor to the C-terminal truncated gp160 protein to form an anchored C-terminal truncated gp160 protein; and

(b) admixing the anchored C-terminal truncated gp160 protein with said proteosomes such that the anchored C-terminal truncated gp160 protein is complexed with said proteosomes; and

(c) combining the anchored C-terminal truncated gp160 protein complexed with said proteosomes with the bioadhesive nanoemulsions.

41. (New) The process according to claim 40 wherein said admixing step is performed in the presence of a detergent, and is followed by the step of removing the detergent by dialysis.

42. (New) The process according to claim 40 wherein said admixing step is performed by lyophilization.